

ABSTRACT OF THE DISCLOSURE

A fiber optics ferrule precision improvement apparatus controlled to insert a ceramic fiber optics ferrule calibrating axle into the inner diameter or onto the outer diameter of a fiber optics ferrule, so as to expand the inner diameter or compress the outer diameter of the fiber optics ferrule, calibrating the inner diameter or outer diameter of the fiber optics ferrule to the dimension tolerance and roundness approximately equal to the ceramic fiber optics ferrule calibrating axle, and keeping the tolerance of the fiber optics ferrule within $1\sim3\mu\text{m}$. The fabrication of the ceramic fiber optics calibrating axle includes the steps of ceramic powder pre-treatment process, ceramic powder activation process, blank axle body formation process, sintering process, and high-precision grinding process.

15